**Year 9 (Phase 3/ Key Stage 3)**

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| **Week** | **Model of Learning** | **Topic** | **Curriculum Standard** | | | **Learning outcomes** | **Prior Learning** | | | **Cross curricular links** | | **Resources** | | **Home learning/ Homework** | **Assessment Platform/ Apps for**  **AFL** | **Key vocabulary** | **Ongoing reflection/**  **Modification** | |
| **JANUARY** | | | | | | | | | | | | | | | | | | |
| **Week 16**  **(03/01/2021-07/01/2021)** | Blended Learning and Distance Learning | **9Fe Extracting metals** | KS3 | | | * To explain why the metals used to extract is related to cost and metal reactivity * Describe how metals are extracted from their ores * Investigate the function of the plant water transport system. | | Properties of metals | | Maths, English and Art | | https://developingexperts.com/s/unit-library/curriculum/1 | | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Native state, reduce, reducing agent, redox reaction |  | |
| **Week 17**  **(10/01/2021-14/01/2021)** | Blended Learning and Distance Learning | Revision  WS for MYA | KS3 | | | Differentiate between dependent, independent and control variables. | | Dependent variable  independent  variable | | Maths, English and Art | |  | | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | dependent independent control  constant variables |  | |
| **Week 18**  **(17/01/2021-21/01/2021)** | **Mid Year Assessment** | | | | | | | | | | | | | | | | | |
| **Week 19**  **(24/01/2021-28/01/2021)** | **Mid Year Assessment** | | | | | | | | | | | | | | | | | |
| **JANUARY/ FEBRUARY** | | | | | | | | | | | | | | | | | | |
| **Week 20**  **(31/01/2021-04/02/2021)** | Blended Learning and Distance Learning | * 9Gb Chemical reactions | | KS3 | | * To interpret and sketch energy profiles * Explain why reactions are described as exothermic and endothermic * Explain how bonding affects the chemical properties. * Describe the energy changes accompanying a chemical reaction | | | Transformation of energy into various forms | Maths, English and Art | | <https://www.bbc.co.uk/bitesize/articles/zr6mkty>  https://www.slideshare.net/cartlidge/energy-change-during-chemical-rcts | | Assignment In the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Electrons, neutrons , protons , metallic bonding , ions, conductivity | |  |
| **Week 21**  **(07/02/2021-11/02/2021)** | Blended Learning and Distance Learning | 9Ga Art and chemistry  9Ga ions | | KS3 | | * Explain how ions are formed * Describe ionic conducting and metallic conducting * Describe the different ways in which energy is transferred and stored. * Elaborate the law of conservation of energy. | | | Knows the symbol of elements and how to get information about an element from the periodic table | Maths, English and Art | | <https://developingexperts.com/s/unit-library/curriculum/1>  <https://www.sciencevideos.co.uk/>  <https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing>  <https://drive.google.com/file/d/1OJhv7wmBJ2r7kqoC3j4xTQ9os0UR-HgZ/view?usp=sharing> | | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Reaction profile, exothermic, endothermic, reactants, products, energy change, activation energy, malleable | |  |
| **Week 22**  **(14/02/2021-18/02/2021)** | Blended Learning and Distance Learning | * 9Gc Physical and chemical changes   WS   * Fair comparisons of reaction rates and plotting of graphs | | KS3 | | * Describe how rates of reaction change. * Describe the factors on which rates of reaction is dependant * Explain the importance of surface area: volume ratios * Make a fair comparison of result. * Calculate ratios. | | | Differentiate between physical and chemical change | Maths, English and Art | | <https://developingexperts.com/s/unit-library/curriculum/1>  <https://www.sciencevideos.co.uk/>  <https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing>  <https://drive.google.com/file/d/1OJhv7wmBJ2r7kqoC3j4xTQ9os0UR-HgZ/view?usp=sharing> | | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Rate of reactions,  surface area, tabular data,  surface area: volume ratio. | |  |
| **Half Term Break for Students (21/02/2021-23/02/2021)** | | | | | | | | | | | | | | | | | | |
| **Week 23**  **(24/02/2021-25/02/2021)** | Blended Learning and Distance Learning | **Chapter:9Gd Periodic table** | | KS3 | | * To write balanced equations with state symbols. * To represent the quantities in standard forms(WS). * Present information as bar charts and scatter charts. * To convert numbers to and from standard forms. * To describe use of standard units | | | Law of conservation of mass | | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1>  <https://www.sciencevideos.co.uk/>  <https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing> | Assignment in the Century Tech | | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Salt, neutralisation  Chemical equation  Balanced equations  Law of conservation of mass  Line of best fit |  | |
| **FEBRUARY/ MARCH** | | | | | | | | | | | | | | | | | | |
| **Week 24**  **(28/02/2021-04/03/2021)** | Blended Learning and Distance Learning | 9Ge-**Earth and atmosphere**  9Ge-Equilibria | | | KS3 | * To represent reversible reactions using balanced chemical; equations. * Explain how a dynamic equilibrium is formed in a reversible reaction * Explore causes of environmental variation. * Discuss and describe adaptations to daily and seasonal changes. | | Law of conservation of mass | | | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1>  <https://www.sciencevideos.co.uk/>  <https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing> | | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Physical environmental factors  Equilibrium  Reversible reactions  Dynamic equilibrium  Chemical equilibrium | |  |
| **Week 25**  **(07/03/2021-11/03/2021)** | Blended Learning and Distance Learning | **Working scientifically**  9H1 Carbon capture | | | KS3 | * Describe the technics to control carbon * To plan and carry out an investigation on salts. * To identify the measures to be followed or precations in lab | | Food chains  Food webs | | | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1>  <https://www.sciencevideos.co.uk/>  <https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing>  <https://drive.google.com/file/d/1OJhv7wmBJ2r7kqoC3j4xTQ9os0UR-HgZ/view?usp=sharing> | | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Carbon capture and storage  Electrolysis  Independent and dependent variables  elctrodes | |  |
| **Week 26**  **(14/03/2021-18/03/2021)** | Blended Learning and Distance Learning | * Rock cycle | | | KS3 | * Recall and recognise the three types of rocks mainly- igneous , metamorphic , sedimentary, * Find out how the three rocks re related through rock cycle.. * Comparison of the types of rocks based on their use, reactivity and strength. | | Sources of rocks | | | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1>  <https://www.sciencevideos.co.uk/>  <https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing>  <https://drive.google.com/file/d/1OJhv7wmBJ2r7kqoC3j4xTQ9os0UR-HgZ/view?usp=sharing> | | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Igneous rocks  Metamorphic rocks  Sedimentary rocks  Rock cycle  Compression  metamorphism | |  |
| **Week 27**  **(21/03/2021-25/03/2021)** | Blended Learning and Distance Learning | **Working scientifically**  **9H3 Nano particles**  **9H1Being objective** | | | KS3 | * understand the importance of obtaining evidence in order to answer scientific questions * understand how to record data using appropriate methods, including labelled scientific diagrams, tables, bar graphs, scatter graphs and line graphs. * To be able to evaluate ways in which an investigation could be improved, in order to improve reliability and/or to answer further questions. | | Interpretation of graphs | | | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1>  <https://www.sciencevideos.co.uk/>  <https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing>  <https://drive.google.com/file/d/1OJhv7wmBJ2r7kqoC3j4xTQ9os0UR-HgZ/view?usp=sharing> | | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Nano particles, objective, fair tests. | |  |
| **Spring Break**  **(28/03/2021-08/04/2021)** | | | | | | | | | | | | | | | | | | |